FAQ

If the government allows a product to be sold in stores, isn't it safe?

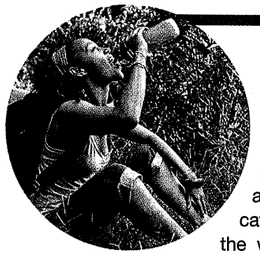
Just because a product is available to the public doesn't mean it poses no risk to consumers. Medicines, cosmetics, and some types of food are tested for safety prior to release, but other potentially dangerous products, such as BPA in plastics, are not similarly tested. And with the federal agencies that oversee product toxicity tests, such as the EPA, now struggling due to extremely steep budget cuts, it would be a mistake to assume that the products you use have been thoroughly tested. The best approach is to educate yourself on the risks in products you use and exercise the famous sentiment of "*caveat emptor*"—Latin for "let the buyer beware."

The EPA regulates pesticides under a 1947 act and its amendments. The Occupational Safety and Health Administration (OSHA) regulates workplace hazards under a 1970 act. Several other agencies regulate other substances.

Synthetic chemicals not covered by other laws are regulated by the EPA under the 1976 **Toxic Substances Control Act (TSCA).** The Toxic Substances Control Act directs the EPA to monitor thousands of industrial chemicals manufactured in or imported into the United States, ranging from PCBs to lead to bisphenol A. The act gives the agency power to regulate these substances and ban them if they are found to pose excessive risk. However, many public health advocates have long viewed TSCA as being far too weak, as only a small percentage of the chemicals that fall under TSCA have been thoroughly screened for toxicity. The Frank R. Lautenberg Chemical Safety for the 21st Century Act, an update to the TSCA, addresses some of these concerns by mandating more stringent testing of some chemicals, but critics argue that many potentially dangerous chemicals will remain inadequately tested.

The European Union (EU) is taking the world's boldest step toward testing and regulating manufactured chemicals. In 2007, the EU's **REACH** program went into effect (*REACH* stands for *R*egistration, *E*valuation, *A*uthorization, and restriction of *CH*emicals). REACH largely shifts the burden of proof for testing chemical safety from national governments to industry and requires that chemical substances produced or imported in amounts of over 1 metric ton per year be registered with a new European Chemicals Agency.

The world's nations have also sought to address chemical pollution with international treaties. The *Stockholm Convention on Persistent Organic Pollutants* (*POPs*) came into force in 2004 and has been ratified by over 150 nations. POPs are toxic chemicals that persist in the environment, bioaccumulate and biomagnify up the food chain, and can travel long distances. The PCBs and other contaminants found in polar bears are a prime example. The Stockholm Convention aims first to end the use and release of 12 POPs shown to be most dangerous, a group nicknamed the "dirty dozen". It sets guidelines for phasing out these chemicals and encourages transition to safer alternatives.



closing THE LOOP

Domestic regulation in the United States by the FDA and EPA, and international agreements such as REACH and the Stockholm Convention, indicate that governments may act to protect the world's people, wildlife, and ecosystems from toxic substances and other environmental hazards. At the same time, solutions often come more easily when they do not arise from government regulation alone. Consumer choice exercised through the market can often be an effective way to influence industry's decision making, but this requires consumers to have full information from scientific research regarding the risks involved. Once scientific results are in, a society's philosophical approach to risk management will determine what policy decisions are made.

All these factors have come into play regarding regulation of BPA, phthalates, and other harmful chemicals in food packaging and other consumer products. Research into the adverse effects of these chemicals is emerging, and while some nations have banned BPA and phthalates, some have only restricted their use in children's products and others have chosen not to restrict them at all. But growing consumer concern over the presence of harmful chemicals such as BPA and phthalates has spurred some companies to shift to safer alternatives, even in the absence of governmental regulation in the United States.

It is important to remember, however, that synthetic chemicals, while exposing people to some risk, have brought us innumerable modern conveniences, a larger food supply, and medical advances that save and extend human lives. A safer and happier future, one that safeguards the well-being of both people and the environment, therefore depends on knowing the risks that some hazards pose, assessing these risks, and having means in place to phase out harmful substances and replace them with safer ones whenever possible.

TESTING Your Comprehension

1. What four major types of health hazards are examined by practitioners of environmental health?
2. In what way is disease the greatest hazard that people face? What kinds of interrelationships must environmental health experts study to learn how diseases affect human health?
3. Where does most exposure to lead, asbestos, radon, and PBDEs occur?